

GLA Weed/Algae/Sediment Control Committee Report

(October 28th, 2019 GLA Board Meeting)

Rollins Aquatic Solutions has completed this year's contract for inspecting and treating our lakes for problematic weed and algae growth. Attached below is the 2019 Annual Lake Report that was submitted by Chris Cartwright who is the Rollins Aquatic Biologist that summarizes this year's activity and results as well as identifies recommendations for next year's treatment plan.

In addition, Rollins completed the last of 5 scheduled monthly bacteria treatments at the end of September that were scheduled on the Goose Lake Finger channels for reducing the amount of muck/sediment on the lakes bottom. This treatment area covered 5.3 total acres. Results are currently being evaluated and documented with a Year End Sediment Reduction Report to be provided next month.

In preparation for next year's plan, a combined Weed/Algae/Sediment Control Committee and Fish Committee Meeting has been scheduled for early November to review the 2019 results and to discuss how to best move forward in 2020 for maintaining our lake resources.

Respectfully Submitted,

Joe Turk
Weed/Algae/Sediment Control Committee Chairperson

2019 Annual Lake Report – Weed & Algae Control

Objective:

This year we were contracted again to spot treat all three lakes for nuisance weed and algae growth. All Algaecides/Herbicides used over the season are labeled through the EPA for aquatic use and were also used in accordance with label rates. The weeds that were treated include the following: Eurasian Milfoil, Variable-Leaf Milfoil, Curlyleaf Pondweed, American Pondweed, Flat-Stemmed Pondweed, Sago Pondweed, Small Pondweed, Naiad, Duckweed, Watermeal, Filamentous and Chara/Nitella type Algae. Below you will find a review of the season for each lake.

Goose Lake Review:

We started the season out in late March/early April with our first inspections. Like previous years, during the first warm days of the spring there was an algae bloom within the finger channels and Muskie trail. The algae bloom wasn't as bad as it has been in years past though. We had a very wet spring this season which caused weed growth to be delayed. We started our first weed treatments of the season in the middle of May for the control of Milfoil and Curly-Leaf pondweed. The target weeds for Goose Lake this

season were Curly-Leaf Pondweed, Eurasian Milfoil, Variable-leaf Milfoil, Duckweed, Watermeal, Sago Pondweed, Naiad and Bushy Pondweed.

The main target area on Goose lake was the Finger channels, Muskie trail, the side channels south of the boat launch bay and the west end of the lake. The main nuisance was Milfoil and Curlyleaf growth. We also experienced Algae blooms in the finger channels and Muskie trail. The Algae was not as bad as last year due to higher water levels and the continued use of bacteria in the channels. Our weed treatments this season yielded longer results, which means that the herbicide combinations are working better. With the addition of the use of Procellacor, I noticed season long control of Milfoil in treatment areas. This meant we had less follow-up treatments like we had experienced in the past for the control of hybrid Milfoils.

We performed a total of 6 weed treatments throughout the lake that covered a total acreage of 11.15 acres. During the 2019 season we were contracted to treat up to 15 acres again. We used some acreage from Goose for extra treatments at Beaver Lake (2.75 acres) and Lincoln lake (.3 acres). That brings the total to 14.2 acres for the season. Next season will have a rollover of .8 acre to be used where needed on any of the lakes. Our management plan worked well this season. We noted a few more native species coming in and other natives that were previously present were found in higher densities.

I recommend for the 2020 season to spot treat up to 13 acres of weed growth. We will still include unlimited algae treatments as needed throughout the season. Our management plan will be like last year. We will stay on top of areas that we know mainly produce Milfoil and Curlyleaf growth early on and keep shallow channels clear for boat navigation.

Vegetation Species Noted:

Filamentous Algae

Chara type Algae

Eurasian Water Milfoil

Northern Milfoil

Variable Leaf Milfoil

Curlyleaf Pondweed

Coontail

Sago Pondweed

American Pondweed

Flat-Stemmed Pondweed

Bushy Pondweed

Southern Naiad

Bladderwort

Duckweed

Watermeal

Beaver Lake Review:

Beaver lake was contracted for spot treatment up to 14 Acres this season. We started our first weed treatment in the middle of April for the control of Curlyleaf pondweed. The treatment areas were similar as last season. The main treatment areas were North Half-Moon, South Half-Moon, North end of the lake and Southwest channel of lake. The target weeds were Curlyleaf Pondweed, Eurasian Milfoil, Variable-leaf Milfoil, Flat-Stemmed Pondweed, Sago Pondweed and Chara type algae.

Like previous years we tried to get a jump on the Curlyleaf Pondweed that was established in the deeper sections of South Half-Moon. After our first treatment we received a lot of rain, which raised the water level and dropped the Curlyleaf from the surface. The early summer flooding made treatment results poor in this area and resulted in a couple follow-up treatments in order to gain control. Once results were noticed the next step was to start controlling the Milfoil growth on the north end of the lake. We mainly used the herbicide Navigate in this area, control was minimal and took longer than expected to see results. I believe the reason for slower control is related to the high-water movement due to the rains during the treatment timeframe. Because of the depth of the treatment area we decided to use the Navigate instead of Procellacor due to Navigate being a granular herbicide and less expensive. Next season I plan to use more Procellacor on the lake for the control of Milfoil species. I believe we will see longer, and faster results compared to the Navigate.

Throughout the season we performed 11 weed treatments for a total of 18.75 Acres. Since we went over the contracted treatment acres for the season we used (2 acres) from a rollover on the 2018 season and (2.75 acres) from Goose lake's contracted treatment acres. For the 2020 season I am recommending spot treating up to 18 acres for the season. I am planning on performing a large Curlyleaf pondweed treatment with the use of Aquathol Super K in the open area of South Half-Moon. This area is particularly known for its early season Curlyleaf growth in depths up to 20-24 feet. I also plan to perform a large treatment for the control of Milfoil on the north end of the lake with the use of Procellacor.

My goal is to see more long-term control of Milfoil throughout the lake. Once this is established, we should be able to start cutting back on treatment acres for the season. I am noticing, just like on Goose lake, more native plants establishing around the lake. American pondweed has the highest density as far as native plants noted around the shoreline. There are some larger beds around the islands and the smaller panfish are taking to the native cover nicely.

Vegetation Species Noted:

Filamentous Algae

Chara/Nitella type Algae

Eurasian Water Milfoil

Northern Water Milfoil

Variable Leaf Milfoil

Coontail

Bladderwort

Curlyleaf Pondweed

Sago Pondweed

American Pondweed

Flat-Stemmed Pondweed

Bushy Pondweed

Southern Naiad

Leafy Pondweed

Water Stargrass

Lincoln Lake Review:

Lincoln lake was contracted to spot treat up to 10 acres of nuisance growth. The first weed treatment was performed in middle May. The late start was due to a combination of successful weed treatments the previous year and the heavy rains we experienced in the early summer. The target weeds that were controlled over the season included: Curlyleaf Pondweed, Eurasian Milfoil, Variable-Leaf Milfoil, American Pondweed, Sago Pondweed, Small Pondweed, Naiad and Chara-type algae.

The main areas of focus were like previous years, but less density of weeds was noted in these areas. Just like last year the beginning of the season started with our focus of controlling Curlyleaf Pondweed around the lake. Then the focus went to controlling Milfoil growth and some native plants where nuisance control was needed. Most of the coves and narrow channels needed treatment at some point this season. These areas had depths less than 10 feet of water where weeds can really cause issues with boat traffic. One area that I did notice improvements on is the north end of Coal City road channel. In previous years there had been heavy amounts of Variable-leaf Milfoil present along the last few lots. This season there was a lot less nuisance Milfoil due to our efforts from treatments the past couple seasons.

In Lincoln lake this season we performed 9 weed treatments for a total acreage controlled of 10.3 acres. We had to use (.3 Acre) from Goose lake's contracted acres since we went over what the contract was set up for. For the 2020 season I am recommending spot treating up to 10 acres of weed growth again. Our management goal will stay the same for Lincoln Lake. We tried this season to leave as much of the native plants that we could, even some non-native plants if they were not a nuisance to recreational activities. I feel our management plan is working well to get a better variety of plants to thrive throughout the waterbody. Since the majority of the lake is so deep there is a lack of cover for the fisheries and we will continue to do our best to promote native weed growth while managing for nuisance growth.

Vegetation Species Noted:

Filamentous Algae

Chara/Nitella type Algae

Eurasian Water Milfoil

Variable Leaf Milfoil

Curlyleaf Pondweed

Bladderwort

Sago Pondweed

Small Pondweed

American Pondweed

Coontail

Southern Naiad

***The above-mentioned plants are not a representation of the entire plant community within the lakes. These plants are just what were noted over the course of the season.**

Conclusion:

Even though this season started with heavy rainfall and ended in the same fashion we were still able to have a successful treatment year. Goose Lake had a better year with respect to the nuisance growth. There were a couple bad algae blooms in the finger channels this summer when the heat was on the rise and the weather was dry, but overall the algae growth was less than last year. Beaver Lake experienced difficulties on the north and south end of the lake with Curlyleaf Pondweed and Milfoil issues. I have a plan moving forward for next year to do a larger treatment in these areas with a systemic herbicide. This will help with having a long-term control of the weed growth. Lincoln Lake had a good year this season for our management plan. We were able to stay on top of troubled areas we have performed treatments in the past. Also, areas that were normally bad in previous years, didn't have as much nuisance growth this season.

For 2020 I am recommending spot treating each one of the lakes again. For Goose lake I am proposing 13 acres, Beaver lake I am proposing 18 acres and Lincoln lake treatments up to 10 acres. We will have a rollover amount of .85 acres from this season to be used as needed for next year as well. I am very interested to see what type of re-growth is experienced in the treatment areas where I applied Procellacor herbicide. The manufacturer is noting multiple year control on Milfoil and Hybrid Milfoil species. If we see multiple year control it may be a key to eradicating Milfoil species from the lakes and lowering the amount of treatment acres required in the future.

Chris Cartwright

Aquatic Biologist

Rollins Aquatic solutions